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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/730,783	12/07/2000	Sang Jin Oh	2832-0118P	8908

2292 7590 11/23/2005

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EXAMINER
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OLSEN, ALLAN W

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/730,783	<b>Applicant(s)</b> OH ET AL.	
	<b>Examiner</b> Allan Olsen	<b>Art Unit</b> 1763	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on several telephone interviews.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.  
     4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s)    is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s)    is/are objected to.
- 8) ☐ Claim(s)    are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on    is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No.   .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. <u>  </u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                       | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                 |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>  </u> | 6) <input type="checkbox"/> Other: <u>  </u>  |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

In an examiner initiated telephone interview with Mr. Webster on August 22, 2005, an examiner's amendment was agreed upon which was intended to place the application in condition for allowance. However, the indicated allowability of the claim is withdrawn in view of the newly discovered references JP 61-231181 and JP 02-149683. Rejections based on the newly cited references follow.

In a subsequent interview, on November 18, 2005, the examiner informed Mr. Webster that the Office was reopening prosecution because of the newly found references.

### ***Election/Restrictions***

Claim 10 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on October 14, 2004.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 61-231181 in view of JP-02-149683.

JP 61-231181 discloses a method of forming a grooved cylindrical core comprising: coating a mask 3 on an external surface of the core pipe 1; partially removing the mask 3 using a cutting bite 6; etching the exposed portions of the pipe.

JP 61-231181 does not teach etching using ultrasonic waves.

JP 02-149683 discloses using ultrasonic wave etching to provide etched grooves having uniform depth.

The motivation for using ultrasonic wave etching is to improve the uniformity of depth in all of the grooves in the etched cylindrical substrate.

With respect to the intended use limitations recited in the claims, it is noted that what the roll punch is used for later, is not considered to limit the claims. While intended use recitations and other types of functional language cannot be entirely disregarded, in apparatus, article, and composition claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claims. In a claim drawn to process of making, the intended use must result in a manipulative difference as

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compared to the prior art. *In Re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); *In re Otto*, 3122 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963).

Claims 4, 5 rejected under 35 U.S.C. 103(a) as being unpatentable over JP 61-231181 and JP 02-149683 as applied to claim 9 above, in view of US Patent 5,747,931 issued to Riddle et al.

JP 61-231181 and JP 02-149683 do not teach forming a roll punch with an intended use of forming partition walls of a plasma display panel. As, such they do not teach forming a roll punch having vertical side-walls.

Riddle teaches using a roll punch with the intended use of forming partition walls for a plasma display panel and Riddle teaches forming vertical side walls (column 5, line 62).

When making a roll punch according to the combined teachings of JP 61-231181 and JP 02-149683, it would be obvious for one skilled in the art to make the roll punch with vertical side wall if the roll punch is to be used to form partition walls of a plasma display panel because Riddle teaches that vertical sidewalls are desirable for roll punches when they are to be used to form plasma display panels.

Claims 1, 2 and 6-9 are rejected are under 35 U.S.C. 103(a) as being unpatentable over JP 10-193024 in view of JP-02-149683.

JP 10-193024 discloses a method of forming a grooved cylindrical core comprising: providing a resin layer 104 on an external surface of roll 102; irradiating

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laser beam 112 on the resin layer to expose the underlying roll; etching the exposed metal portions of the roll.

JP 10-193024 does not teach etching using ultrasonic waves.

JP 02-149683 discloses using ultrasonic wave etching to provide etched grooves having uniform depth.

The motivation for using ultrasonic wave etching is to improve the uniformity of depth in all of the grooves in the etched cylindrical substrate.

With respect to the intended use limitations recited in the claims, it is noted that what the roll punch is used for later, is not considered to limit the claims. While intended use recitations and other types of functional language cannot be entirely disregarded, in apparatus, article, and composition claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claims. In a claim drawn to process of making, the intended use must result in a manipulative difference as compared to the prior art. *In Re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); *In re Otto*, 3122 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963).

Claims 4, 5 rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-193024 and JP 02-149683 as applied to claim 9 above, in view of US Patent 5,747,931 issued to Riddle et al.

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JP 10-193024 and JP 02-149683 do not teach forming a roll punch with an intended use of forming partition walls of a plasma display panel. As, such they do not teach forming a roll punch having vertical side-walls.

Riddle teaches using a roll punch with the intended use of forming partition walls for a plasma display panel and Riddle teaches forming vertical side walls (column 5, line 62).

When making a roll punch according to the combined teachings of JP 10-193024 and JP 02-149683, it would be obvious for one skilled in the art to make the roll punch with vertical side wall if the roll punch is to be used to form partition walls of a plasma display panel because Riddle teaches that vertical sidewalls are desirable for roll punches when they are to be used to form plasma display panels.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Olsen whose telephone number is 571-272-1441. The examiner can normally be reached on M-F 1-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 18, 2005  
AWO

A handwritten signature in black ink, appearing to read 'Allan Olsen', is written over the printed name and title.

Allan Olsen  
Primary Examiner  
Art Unit 1763